

REMARKS

The Examiner objected to the drawings, because they fail to show the lines A-A and B-B. Applicant has amended Figs. 1, 17 and 19 to show these designations. Applicant also amended Figs. 9 and 10 to show the correct aperture sizes in the wall 18 of the housing 10 as shown correctly in Fig. 1 (see aperture 20 in Fig. 1). Fig. 13 has also been amended to show the correct end wall 80 as described in paragraph [0052] and illustrated in Figs. 15, 19 and 20. Applicant has appended corrected drawings as an appendix. No new matter is entered, because these structures were already illustrated in other Figures and the description makes the correct structures clear.

The Examiner rejected claims 3, 13 and 24 under 35 U.S.C. §112 as being indefinite due to the use of the word “can.” Applicant has amended these claims to recite the structures that permit the disassembly. Therefore, the claims are now allowable.

The Examiner rejected all of the claims as being anticipated by Kapur, or as being obvious from Kapur when combined with Stormer and Legal Precedent. Applicant also submits herein U.S. Patent No. 5,906,297 to Cole, which is also referenced in a simultaneously-filed Invention Disclosure Statement in order to fulfill Applicant's obligations under 37 C.F.R. §1.56. Applicant has cancelled some claims and amended others. Therefore, all non-cancelled claims are now allowable.

The invention is a flow divider that receives fluent material, such as raw sausage or cookie dough, from a device that pumps the fluent material. The pump supplies the fluent material, normally through a single tube, to the flow divider, which separates the fluent material into two or more equal volume flows of material. The flow divider does so by receiving the fluent material in a single supply passage that is longitudinally

oriented in the housing of the flow divider. Each chamber of each region of the flow divider has an inlet cavity on its sidewall that is connected to the supply passage, and this connection permits fluent material in the supply passage to be supplied to each chamber. The supply passage in the housing is a very small physical part of the housing, but it provides a significant advantage, inasmuch as it permits the fluent material to be supplied to the flow divider through one port, rather than multiple ports as in the prior art as described below. The single supply passage provides at least two advantages. First, it makes the flow divider compact, because there is no external manifold as in the prior art. Second, it makes the flow divider truly modular, because, regardless of the number of chambers and outlets, there is still only one supply port. Thus, there need not be a different supply manifold for every different number of chambers.

The housings in the preferred embodiment of the invention can be attached and detached from one another, thereby permitting the source of fluent material to be divided into as many chambers as desired. For example, if one wishes to divide the fluent material from one into three equal flows, one needs to simply attach three housings, each having a hub and vanes, to one another. End walls are then attached to the opposite ends of the cluster of housings and the supply line is attached to the inlet port. No special inlet manifold is needed. If the user desires to have the supply divided into six flows of equal volume, he or she can simply remove an end wall, attach three more housings (with hubs and vanes), replace the end wall and reattach the supply line, and the flow divider is operational without another, different inlet manifold.

The Kapur patent shows a vane pump having several inlets and several outlets through which fluid is driven by a single drive shaft that drives several vanes. The inlets

are fed either by different supply lines, or by a manifold that divides a single supply line up into the number of inlets. The same applies to the outlets. There is no single source or destination passage that extends through the housing substantially parallel to the chambers. Thus the Kapur reference does not disclose the claimed invention.

The invention is also different from that shown in U.S. Patent No. 5,906,297 to Cole, which has a large, funnel-like manifold (see Fig. 2) that supplies fluent material to the inlets of the flow divider shown therein. There is no longitudinal supply or destination passage that avoids the need for a manifold. Thus, the prior art does not show the claimed invention.

The invention is also not obvious from the prior art because no prior art reference suggests a passage through the housing in which the chambers are formed and the hubs and vanes are mounted, in which the passage has an axis substantially parallel to the chambers' axes. The prior art teaches inlets and outlets with a manifold that supplies material, thus requiring a different manifold for each combination of chambers, hubs and vanes.

Applicant's invention has a single passage that extends through the housing in which the chambers are formed, and is substantially parallel to the chambers. All of the inlets¹ in the chambers are connected to the single passage, which makes the invention truly modular: one need merely add more housings to divide the flow more; one need not form a different manifold for each different combination of housings. This is not taught

¹ The term "inlets" is used in this example, but the term "outlets" can be used in the example in which the flow divider is operated in reverse, as claimed in claim 22.

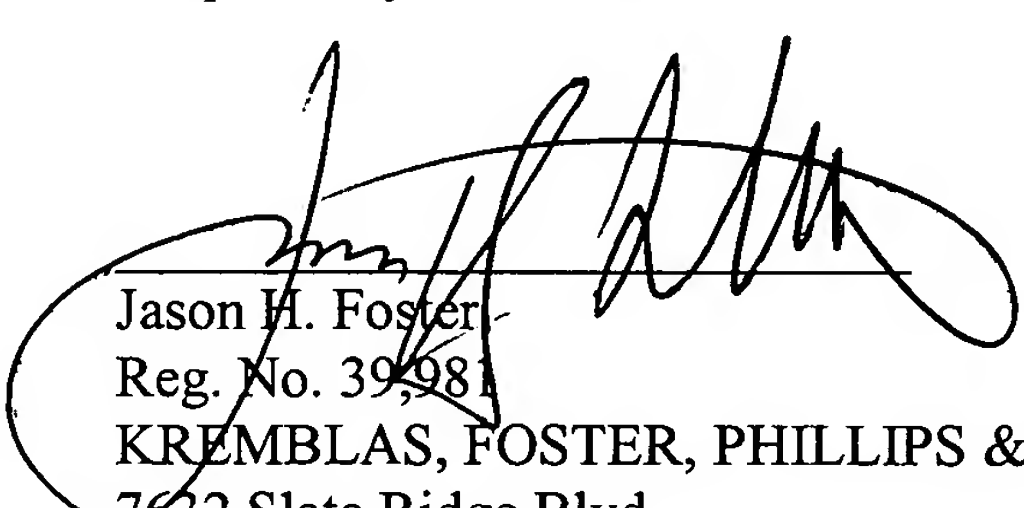
in the prior art. Therefore, the claimed invention is patentable, and reconsideration and allowance are respectfully requested.

The examiner is authorized to communicate with the undersigned attorney by email by the following recommended authorization language: Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file.
(authorization pursuant to MPEP 502.03)

The Commissioner is authorized to charge Deposit Account No. 13-3393 for any insufficient fees under 37 CFR §§ 1.16 or 1.17, or credit any overpayment of fees.

Respectfully submitted,

11 October 2025
Date of Signature


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Five sheets of drawings
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